

FIGURE B78-4a—DRIVERS TRACE, ALLOWABLE RANGE

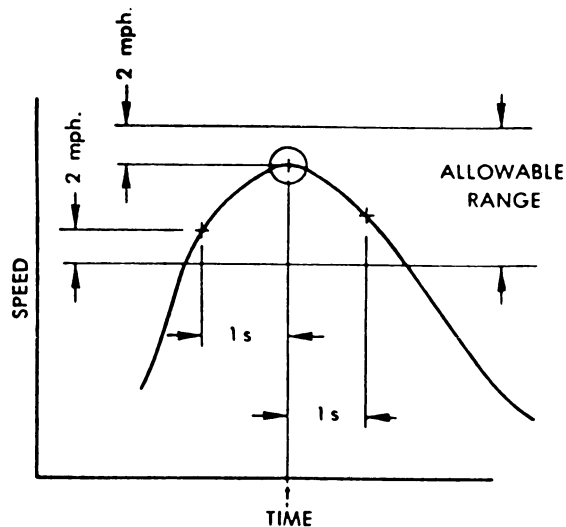


FIGURE B78-4b—DRIVERS TRACE, ALLOWABLE RANGE

[42 FR 32954, June 28, 1977, as amended at 43 FR 52920, Nov. 14, 1978; 58 FR 16030, Mar. 24, 1993; 59 FR 16296, Apr. 6, 1994; 79 FR 23695, Apr. 28, 2014]

**§ 86.116-94 Calibrations, frequency and overview.**

(a) Calibrations shall be performed as specified in § 86.117 through § 86.126.

(b) At least yearly or after any maintenance which could alter background emission levels, evaporative enclosure background emission measurements shall be performed.

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(c) At least monthly or after any maintenance which could alter calibration, the following calibrations and checks shall be performed:

(1) Calibrate the THC analyzers (both evaporative and exhaust instruments), methane analyzer, carbon dioxide analyzer, carbon monoxide analyzer, and oxides of nitrogen analyzer (certain analyzers may require more frequent calibration depending on particular equipment and uses).

(2) Calibrate the dynamometer. If the dynamometer receives a weekly performance check (and remains within calibration) the monthly calibration need not be performed.

(3) Perform an organic gas retention and calibration on the evaporative emissions enclosure (see § 86.117-90(c)).

(4) Calibrate the gas meters or flow instrumentation used for providing total flow measurement for particulate sampling.

(5) Check the oxides of nitrogen converter efficiency.

(d) At least weekly or after any maintenance which could alter calibration, the following calibrations and checks shall be performed:

(1) [Reserved]

(2) Perform a CVS system verification, and

(3) Run a performance check on the dynamometer. This check may be omitted if the dynamometer has been calibrated within the preceding month.

(e) The CVS positive displacement pump or Critical Flow Venturi shall be calibrated following initial installation, major maintenance, or as necessary when indicated by the CVS system verification (described in § 86.119).

(f) Sample conditioning columns, if used in the CO analyzer train, should be checked at a frequency consistent with observed column life or when the indicator of the column packing begins to show deterioration.

(g) The Administrator, upon request, may waive the requirement to comply with the specified methanol recovery tolerance (e.g.,  $\pm 2$  percent in §§ 86.117-90 and 86.119-90), and/or the specified methanol retention tolerance (e.g.,  $\pm 4$  percent in § 86.117-90), and instead require compliance with higher tolerances (not to exceed  $\pm 6$  percent for re-

coveries and  $\pm 8$  for retention), provided that:

(1) The Administrator determines that compliance with these specified tolerances is not practically feasible; and

(2) The manufacturer makes information available to the Administrator which indicates that the calibration tests and their results are consistent with good laboratory practice, and that the results are consistent with the results of calibration testing conducted by the Administrator.

[56 FR 25774, June 5, 1991, as amended at 58 FR 58422, Nov. 1, 1993; 59 FR 33913, July 1, 1994; 60 FR 34342, June 30, 1995]

### § 86.117-96 Evaporative emission enclosure calibrations.

The calibration of evaporative emission enclosures consists of three parts: initial and periodic determination of enclosure background emissions (hydrocarbons and methanol); initial determination of enclosure internal volume; and periodic hydrocarbon and methanol retention check and calibration. Ethanol retention checks may be performed instead of methanol retention checks. Alcohol retentions may be omitted if no alcohol-fueled vehicles will be tested in the evaporative enclosure. For evaporative and refueling emission tests with ethanol-gasoline blends that have less than 25% ethanol by volume, if you account for ethanol with a mathematical adjustment as described in § 86.1813-17(a)(1)(iv) instead of measuring ethanol, the testing specifications and diagnostic requirements in this part 86 that are specific to ethanol-gasoline blends do not apply. Alternate calibration methods may be used if shown to yield equivalent or superior results, and if approved in advance by the Administrator; specifically, more extreme temperatures may be used for determining calibration without affecting the validity of test results.

(a) *Initial and periodic determination of enclosure background emissions.* Prior to its introduction into service, annually thereafter, and after any repair that can affect the enclosure background emissions, the enclosure shall be checked to determine that it does not contain materials that will themselves